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ABSTRACT OF THE DISCLOSURE

A method of traffic regulation in a packet communication network involves a token bucket associated with a subscriber. Packets arriving at the regulator are handled in accordance with the token bucket configuration. The method further involves measuring a demand placed on the packet communication network by the subscriber. The token bucket configuration for the subscriber is dynamically adjusted based on the demand. Another method of traffic regulation handles packets that arrive at the regulator in accordance with first and second token bucket configurations. The first token bucket regulates packet rate while the second token bucket regulates data rate. Another method of traffic regulation involves handling packets in accordance with a token bucket configuration, where the amount of tokens to be removed is based on the amount of the flow and is further based on a classification of the flow. Packet-level devices for traffic regulation are also contemplated.